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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,169	02/25/2002	Jose Castillo Deniega	IFLOW.063DV1	3825

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EXAMINER

LAM, ANN Y

ART UNIT PAPER NUMBER

1641

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/085,169	Applicant(s) DENIEGA ET AL.	
	Examiner Ann Y. Lam	Art Unit 1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-8,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-8,11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 26, 2005 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 2, 3, 5-7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lampropoulos et al., 5,817,072, in view of Crowley et al., 6,004,279.

Lampropoulos et al. discloses the invention substantially as claimed.

As to claims 1 and 5, Lampropoulos et al. discloses an elongated tube having a plurality of exit holes increasing in size along the length of the catheter (column 7, lines

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57-67), so that a fluid flowing therein will flow through substantially all of said exit holes at a substantially equal rate (column 7, lines 57-67), a lumen of said catheter having a cross-sectional flow area, said exit holes having a non-variable, combined cross-sectional flow area less than the flow area of the lumen so that the exit holes define a flow restricting orifice of the catheter (column 8, lines 8-13), the catheter being formed from a material that is non-reactive to anatomical system. (Since the slots are normally in a closed position, the cross-sectional area of the slots are considered to be smaller than the cross section area of the lumen.)

However, Lampropoulos et al. do not disclose that the exit slots are normally open. (Rather, Lampropoulos et al. disclose that the exit slots are normally closed.)

Crowley et al. however disclose that normally open slots and normally closed slots are functional equivalents as means for infusing fluid from inside a catheter to outside the catheter. In particular, Crowley et al. discloses an embodiment (fig. 5, and col. 8, lines 62-67), wherein the apertures (62) are open and an alternative embodiment (fig. 7, col. 7, lines 55-66), with a slit 98 that is normally closed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the Lampropoulos et al. slits for a normally open slot as taught by Crowley et al., because Crowley et al. teach that normally closed slits and normally open slots are functional equivalents for infusing fluid from inside a catheter.

As to the following claims, Lampropoulos et al. discloses the limitations as follows.

As to claim 5, since Lampropoulos discloses such a catheter, Lampropoulos therefore discloses the steps of manufacturing the catheter, including the step of providing exit holes having a non-variable size.

As to claims 2 and 6, the holes are provided throughout the circumference of the catheter (see figure 6).

As to claims 7 and 11, the exit holes are in at least one row aligned with a longitudinal axis of the catheter (see fig. 16.)

Moreover, as to claim 3, Lampropoulos et al. does not disclose the specific diameter of the exit holes. However, the diameter of the exit holes that would achieve the optimum results, i.e., the most uniform delivery of fluids, as taught by Lampropoulos, can be discovered through routine experimentation and thus would be obvious. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

2. Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lampropoulos et al., 5,817,072, in view of Crowley et al., 6,004,279, as applied to claim 1, and further in view of Stevens, 5,536,261.

Lampropoulos et al. in view of Crowley et al. disclose the invention substantially as claimed (see above), except for the motivation to provide a closed distal end. (Although Crowley et al. teaches a closed distal end, Crowley et al. is silent as to the advantages of a closed distal end.)

Stevens discloses a catheter having openings for fluid delivery in the circulatory system. Stevens teaches that the catheter has a closed distal end which encourages lateral flow as would be desirable (column 2, lines 35-37.) It would have been obvious to provide a closed end as taught by Stevens in the Lampropoulos catheter because Stevens teaches that a closed distal end provides the advantage of encouraging lateral flow as would be desirable for delivering fluid in the circulatory system.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new grounds of rejections. (Crowley et al. provides the motivation to substitute a normally closed slit for a normally open aperture.)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applying et al., 5,267,979, discloses that slits instead of holes in the distal segments of catheters are known in the art.

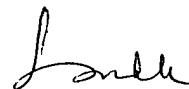
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann Y. Lam whose telephone number is 571-272-0822. The examiner can normally be reached on M-Sat 11-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A.L.



LONG V. LE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

10/14/05